

Notice of Allowability

Application No.

09/654,943

Examiner

Vincent E. Kovalick

Applicant(s)

AHN, SEUNG KUK

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to applicant's amendment and RCE dated 1/18/07.
2. ☒ The allowed claim(s) is/are 1-21 (re-numbered 1-21).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 4/5/06
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to Applicant's Request for Continued Examination and Amendment dated January 18, 2007 in response to USPTO Final Office Action dated September 18, 2006.

The Amendments to claims 1, 5, 11, 16; the addition of new claim 21 and the merits of Applicant's remarks are sufficient to place the application in a condition for allowance.

Allowable Subject Matter

2. Claim 1-21 are allowed.

3. Relative to claims 1 and 5, the major difference between the teachings of the prior art of record (USP 6,496,172, Hirakata; USP 5,847,687, Hirakata et al. and USP 5,739,804, Okumura et al.) and that of the instant invention is that said prior art of record **does not teach** an apparatus for driving a liquid crystal matrix type panel in an inversion system comprising: a first signal supplying means for setting at least one pixel block each of which includes at least two data lines within the liquid crystal panel to apply data signals having the same polarity to adjacent pixels in a gate line direction within the at least one pixel block; and a second signal supplying means for applying data signals to pixels outside the at least one pixel block, wherein the applied data signals have a polarity contrary to data signals applied to each of the pixels adjacently arranged at left and right sides thereof and also arranged outside the at least one pixel block.

Relative to claims 11 and 16, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** an apparatus for driving a liquid crystal matrix panel comprising: first signal supplying means for applying video signals to at least one first plurality of consecutively arranged data lines such that video signals having the same polarity are applied to pixels adjacent each other along a gate line direction; and second signal supplying means for applying video signals to at least one second plurality of consecutively arranged data lines such that

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video signals having opposite polarities are applied to each of the pixels adjacent each other along a gate line direction, wherein data lines within the at least one second plurality of consecutively arranged data lines are not included within the at least one first plurality of consecutively arranged data lines.

Relative to claim 21, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** an apparatus for driving a liquid crystal panel comprising: a plurality of data drivers; and a plurality of blocks of adjacent data lines each associated with one of the plurality of data drivers; wherein pixels along a gate line in each of the plurality of blocks of adjacent data lines are driven using a dot inversion method such that adjacent pixels along the gate line have opposite polarities; and wherein pixels from at least two different blocks of adjacent data lines that are directly adjacent to one another along a gate line have the same polarity.

Response to Applicant's Remarks

4. Applicant's remarks relative to claims 1, 5, 11 and 16 are rendered moot in light of the allowance of this case.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent No.	6,559,822	Okuzono
U. S. Patent No.	6,400,350	Nishimura et al.
U. S. Patent No.	6,327,008	Fujiyoshi

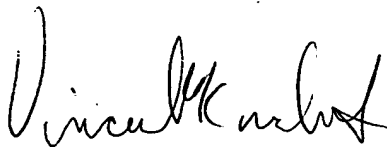
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To Respond

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent E. Kovalick whose telephone number is 571-272-7669. The examiner can normally be reached on Monday-Thursday 7:30- 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Vincent E. Kovalick
April 11, 2007



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SUPERVISORY PATENT EXAMINER
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